

CLAIMS:

1. A method of making a reusable mold for forming a microelectronic package, comprising:

removing material from portions of a base to form recesses in said base; and

depositing a mask material on at least some portions of said base so as to form a mask attached to said base.

2. The method of claim 1, wherein the step of removing material comprises removing material from said base and wherein said base comprises a metal plate.

3. The method of claim 2, wherein the step of removing comprises etching said metal plate with Ferric Chloride and wherein said base comprises a stainless steel plate.

4. The method of claim 1, wherein the step of removing material comprises etching said base.

5. The method of claim 1, further comprising providing a first mask having openings on said base and the step of removing material comprises removing material from said portions of said base that are aligned with said openings in said first mask and wherein said mask material forms a second mask.

6. The method of claim 5, wherein the step of providing a first mask comprises depositing a photoresist on said base and patterning said photoresist so as to form openings in said photoresist.

7. The method of claim 1, wherein the step of depositing a mask material comprises utilizing electrophoretic deposition.

8. The method of claim 7, wherein the step of depositing a mask material comprises depositing a polymer utilizing electrophoretic deposition.

9. The method of claim 5, further comprising partially curing said mask material before the step of removing said first mask.

10. The method of claim 9, further comprising removing said first mask after the step of depositing the mask material to form said second mask.

11. The method of claim 10, further comprising further curing of said mask material after the step of removing said first mask.

12. The method of claim 11, wherein the further curing includes applying pressure.

13. A method of forming a microelectronic package, comprising:

assembling a microelectronic element with a mold having a mask and conductive pads;

coating the microelectronic element with a mold material material, so as to at least partially embed the microelectronic element in said mold material; and

removing the microelectronic element and conductive pads from said mold.

14. The method of claim 13, further comprising providing a base and forming said conductive pads on a surface of said base.

15. The method of claim 14, wherein the step of assembling includes adhering the microelectronic element to said surface of said base having said conductive pads.

16. The method of claim 13, wherein assembling the microelectronic element includes bonding contacts of said microelectronic element to said conductive pads.

17. The method of claim 16, wherein the microelectronic element is assembled so that said contacts face away from said base and said conductive pads face said

microelectronic element, wherein said contacts are bonded to said conductive pads.

18. The method of claim 13, wherein the step of removing comprises releasing said mold material, microelectronic element and conductive pads from said mold.

19. The method of claim 18, wherein the step of removing comprises releasing from a surface of said mold that includes a polished surface.

20. The method of claim 13, wherein said mold has areas for a plurality of microelectronic elements, wherein the step of assembling comprises assembling a first microelectronic element with said mold and further comprises assembling a second microelectronic element with said mold.

21. The method of claim 20, further comprising severing said mold material so as to form separate packages after the step of removing.

22. A method of forming a microelectronic package, comprising:

assembling a microelectronic element with a mold having a pattern of conductive areas;

coating the microelectronic element with a mold material, so as to at least partially embed the microelectronic element in said mold material; and

removing the microelectronic element and at least some of said conductive areas from said mold.

23. The method of claim 22, wherein the step of assembling comprises disposing the microelectronic element in said mold, said mold having raised portions and recessed portions.

24. The method of claim 23, further comprising applying a pattern of dielectric material so that said dielectric material is disposed on said raised portions of

said mold, said dielectric material defining said conductive areas.

25. The method of claim 24, further comprising depositing a conductive material in at least some of said recessed portions to form said conductive areas.

26. The method of claim 25, wherein the step of assembling the microelectronic element comprises disposing the microelectronic element in said mold in one of said recessed portions.

27. The method of claim 26, wherein the step of assembling the microelectronic element comprises connecting contacts of said microelectronic element to said conductive areas.

28. The method of claim 27, wherein the step of assembling the microelectronic element includes connecting said contacts to said conductive areas in at least some of said recesses.

29. The method of claim 22, further comprising mounting a conductive plate over the microelectronic element.

30. The method of claim 29, wherein the step of mounting comprises mounting said conductive plate so that said conductive plate overlies the microelectronic element, said mold having sides and conductive material on said sides, the mounting including disposing said conductive plate on said conductive material disposed on said sides of said mold.

31. The method of claim 30, wherein the step of releasing includes releasing said conductive material so that said conductive material and said conductive plate substantially surround the microelectronic element.

32. A mold for making a microelectronic package, comprising:

a plate with an upper surface; and

a mask comprising a polymeric material embedded in said upper surface of said plate.

33. The mold of claim 32, wherein a plurality of recesses are defined in said upper surface of said plate and said polymeric material is embedded in said recesses.

34. The mold of claim 32, wherein said polymeric material is a fluoropolymer.

35. The mold of claim 32, wherein said upper surface of said plate comprises a polished surface.

36. The mold of claim 32, wherein said mask has openings arranged for forming a plurality of conductive features for the package.

37. A mold for making a microelectronic package, comprising:

a base having an upper surface defining a plurality of recesses; and

said recesses comprising bonding recesses for forming conductive pads for the package.

38. The mold of claim 37, wherein said mold comprises mounting recesses for receiving a microelectronic element.

39. A microelectronic element comprising:

a plurality of microelectronic element having a front face including contacts and a back surface remote therefrom:

a mass of dielectric material at least partially encapsulating said microelectronic element so that said encapsulated microelectronic element forms a body having an exterior surface;

a mounting pad exposed at said exterior surface adjacent said back surface of said microelectronic element; and

conductive pads attached to and supported by said mass of dielectric material.

40. The microelectronic assembly of claim 39, wherein said conductive pads extend through said mass of dielectric material and are electrically connected with said contacts of the microelectronic element.

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